

6.
REPORT

—OF—

CHARLES F. BROOKE,
OF MONTGOMERY COUNTY,

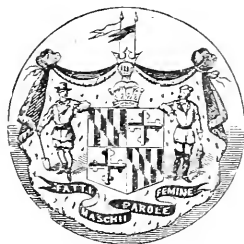
—AND—

JAMES D. ANDERSON,
OF SOMERSET COUNTY.

THE
Commissioners of Fisheries
OF MARYLAND

—FOR—

1906-1907.



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LIST OF FISH COMMISSIONERS OF MARYLAND

Western Shore.

T. B. FERGUSON.....	1874-1875.....	PHILIP W. DOWNES.
T. B. FERGUSON.....	1876-1877.....	PHILIP W. DOWNES.
T. B. FERGUSON.....	1878-1879.....	THOMAS HUGHLETT, SR.
T. B. FERGUSON.....	1880-1881.....	THOMAS HUGHLETT, SR.
T. B. FERGUSON.....	1882-1883.....	THOMAS HUGHLETT, SR.
G. W. DELAWDER.....	1884-1885.....	DR. E. W. HUMPHREYS.
G. W. DELAWDER.....	1886-1887.....	DR. E. W. HUMPHREYS.
G. W. DELAWDER.....	1888-1889.....	STEPHEN P. TOADVINE.
G. W. DELAWDER.....	1890-1891.....	GRANVILLE R. RIDER
RICHARD T. BROWNING.....	1892-1893.....	JOHN S. SUDLER.
RICHARD T. BROWNING.....	1894-1895.....	JOHN S. SUDLER.
JOHN E. GNAGEY.....	1896-1897.....	JAMES C. TAWES.
A. F. GEORGE.....	1898-1899.....	JOHN E. STERLING.
JESSE W. DOWNEY.....	1900-1901.....	CLARENCE L. VINCENT.
JESSE W. DOWNEY.....	1902-1903.....	CLARENCE L. VINCENT.
CHARLES F. BROOKE.....	1904-1905.....	JAMES D. ANDERSON.
CHARLES F. BROOKE.....	1906-1907.....	JAMES D. ANDERSON.

Eastern Shore.

REPORT.

TO HIS EXCELLENCY,

HON. AUSTIN L. CROTHERS,

GOVERNOR OF MARYLAND.

Sir : We have the honor to submit herewith our report of work done from November 1, 1905, to November 1, 1907.

The work of the Commission has progressed along the same lines as in previous years; the results, however, have been greater than ever before, with the one exception of shad.

This fish is found in decreasing numbers, and it is becoming difficult to obtain eggs for propagation. Unless some legislation is enacted for their protection they will continue to decrease in numbers, for, owing to the great difficulty in obtaining eggs, artificial propagation cannot keep pace with their destruction. It is only a small percentage of the roe shad taken whose ova is suitable for hatching; thus it is that the decreasing supply of shad greatly lessens the number which can be artificially hatched. It is indisputable that were it not for the efforts of the United States Government in connection with the Fish Commissions of several States along the Atlantic coast, several varieties of our food fish would be practically exterminated.

The opportunity for fish to reach suitable spawning grounds, and reproduce in the natural way, has become so restricted by the damming of streams, by pollution, and in numerous other ways, that without increased efforts in artificial hatching they cannot keep ahead of the agencies which are destroying them. Vast areas of bottoms which were at one time suitable for spawning purposes are no longer so, owing to the immense quantities of sewage which wash down upon them from adjacent towns and cities and in rural districts to silt and mud from cultivated lands.

We would earnestly recommend the establishment of a hatchery upon the Western Shore, near the waters where

shad and perch are taken in large quantities. The expense and loss consequent upon the present location of the Western Shore Hatchery are very great and should be avoided as far as possible.

The work which has been done by this Commission in stocking waters with perch has been very successful, and numerous rivers which were formerly barren are now so well stocked with this fish that their taking is profitable, and they are being shipped to the markets in large quantities. The results from their propagation have been most gratifying, and beyond our expectations. They are largely upon the increase, and as a food fish for the great masses of the people are exceedingly valuable.

We find that trout have greatly multiplied in five of the counties of the Western Shore.

Bass fishing has been better for the past two years than for years previous, and this is largely due to re-stocking and to the enforcement of the laws regarding pollution.

We have many requests for the Fall Fish, which is greatly prized by our anglers. An effort has been made to propagate them, by artificial means, but without success. We would suggest that suitable ponds be constructed, and that they be propagated by this method.

The market value of the annual catch of fish in Chesapeake Bay and its tributaries is worth about six millions of dollars to the people of this State. Such an industry is certainly worthy of every effort to maintain and increase its present standard.

Respectfully submitted,

JAS. D. ANDERSON,

CHAS. F. BROOKE,

Fish Commissioners of Maryland.

Report of the Commissioner of Fisheries for the Western Shore.

In making my report upon work done on the Western Shore, I would first call attention to the fact that this Shore has only one hatchery, while the Eastern Shore has four; so the work should be judged of from that point of view.

In this one station I have succeeded in doing a great deal of work, as will be shown by my statistical report on the following pages, and by the addition of modern paraphernalia and methods I have fully doubled its capacity. Its situation is poor, however, and shad and perch ova which are brought from Havre-de-Grace are liable to loss, owing to the distance and to the modes of travel. The expense attendant upon the delivery of fish is very great, on account of the hatchery being beyond the zone in which the express companies operate, and the necessary hauling over the streets of Baltimore is injurious to them to some extent. The one bass pond which the State controls in Druid Hill Park was quite productive last year, and a large quantity of bass fry was distributed. At the nurseries in Garrett County fair results were obtained, the fingerling trout being distributed in October of each year in fine condition.

The cost of all my work has greatly increased. The operation of the Railroad Rate Law is one cause of the increase in expense, and of the difficulty in distributing fish. Where formerly railroads granted free transportation to cans and messengers, it has become necessary on all the roads to pay a full fare for the man in charge, and frequently we are compelled to ship the fish by express, while the messenger is refused admittance to the express car to care for them. Thus the cost of the department has grown in every way.

To show what results can be obtained from stocking streams with artificially hatched fish, I will mention two instances.

Shad are not native to the waters of our Western coast, but a number of years ago the United States Bureau of

Fisheries took shad fry from the waters of the Chesapeake and placed them in California rivers. After three years they returned to the same waters as mature fish, and since that time the shad fisheries in that section have grown to be of great value. The same is true of the striped bass, or rock fish. These fish were introduced by placing four hundred and thirty-five fingerlings in a tributary of San Francisco Bay, since which time the striped bass fisheries of that coast have become exceedingly valuable.

To show what has been done on the Western shore in re-stocking with trout, bass, etc., I would report as follows :

Investigations of all the streams of Garrett county lead us to believe that great good has been done by our work. In proof of this I have letters from which I will make a few extracts.

Mr. Alec M. Scott says in regard to certain waters of that county :

“As to the result of re-stocking these streams, it has been more encouraging the past two years than at any time in the last ten. We are catching more fish and larger fish than perchance were ever caught in the State of Maryland.”

Messrs. Thos. and Jas. Garrett, of Deer Park, Garrett county, write :

“The result of re-stocking the streams in this section has been very satisfactory.”

Mr. P. A. Chisholm, of Oakland, Garrett county, says :

“In regard to the trout streams which have been stocked with trout for the last three years, they are doing splendid. There have been more trout caught this season than any year for the last five years.”

Reports from the waters of Baltimore county seem to show that some of the streams are well adapted to trout, while others are more suited to perch and other varieties of fish.

Mr. M. S. Friedenwald, of Lutherville, Baltimore county, in speaking of the re-stocking of these streams, says :

“The results have been satisfactory.”

Mr. Wm. Fell Johnson, of Brooklandville, writes :

“I think re-stocking has been a benefit and preserves the supply of fish.”

Mr. Chas. G. Alnutt, of Reisterstown, reports as follows :

“The results of stocking the streams in this locality have been most satisfactory for the last few years.”

Reports from Harford county are encouraging.

Mr. Thos. S. Gladden, of Street, Harford county, says :

“I think the results in re-stocking have been all that could be desired.”

Allegany, Frederick, Howard and Montgomery all show improved conditions.

Mr. C. C. Waters, of Germantown, Montgomery county, writes :

“This evening I went where I put trout two years ago and caught some eight inches long.”

Mr. J. Scott Bower, of Hagerstown, says :

“I have just finished an inspection of the many different streams of this county and find the results obtained from re-stocking simply surprising. I am very glad to report to you that we have trout streams in our county which are teeming with trout.”

POLLUTION.

A report from Funkstown says :

“The filth coming from the gas tanks and knitting mills in Hagerstown has wrought a wonderful change in the purity of the water. No longer ago than the thirteenth of October I know of several young men who picked up no less than sixty-five fish which came to the surface of the water for air. I was told that they could not eat them for they tasted of gas tar. The fish thus caught include bass, carp, sunfish and suckers. Quite frequently the water becomes of a real dark color.”

Webster's Run, Harford County, is reported as being badly polluted by offal from a canning establishment. We have also received report of the continued pollution by saw-dust of some of the streams of Baltimore and Carroll Counties.

A gentleman from Baltimore County writes :

"Little Gunpowder Falls is not suitable (for re-stocking) on account of the saw-mills located upon it."

Another says :

"We have two saw-mills on the Little Gunpowder Falls which I think do a lot of damage. All the saw-dust runs into the stream."

It is reported that a distillery at Gwynn Brook "makes no bones of allowing their slops to flow freely, and several times this season killed thousands of mullets or suckers in Gwynn's falls. The entire surface of the stream below would be covered with slops and dead fish."

All of these cases have been taken up by the State Game Warden and have been or will be vigorously prosecuted.

LEGISLATION.

A gentleman in Howard County thinks some legislation should be enacted to prevent the gigging and netting of fish during the summer season. It is claimed that great injury is done to many of the trout streams of this State by parties, who, when fishing for bass, seine to catch small fish for the purpose of live bait, and it is generally thought that some corrective legislation should be enacted.

The following is a partial list of the waters that have been stocked with fish during the last two years. In addition to these there are many small streams without names, and private ponds, which have received consignments :

ALLEGANY.

Lane's Run.
Mill Run.
Jacob's Run.

Bray's Pond.
Cove Run.
Lapps Pond.

Piny Run.
Evitt's Creek.

ANNE ARUNDEL.

Benson's Pond.
Big Lake.

Small Stream.

Watersford Pond.

BALTIMORE.

Hoehoa.
Small stream.
Monk's Branch.
Little Gunpowder Falls.
Western Run.
Owings Creek.
Small stream.
Offert's Creek.
Shipley's Branch.
North Branch.
Watson's Branch.
Upper Jones Falls.
North Br. Jones Falls.
Blue Dam.
Spark's Branch.

Lutherville Branch.
Pleasant Valley.
Pearce Branch.
Avon.
Charles Run.
Harmony Hall Branch.
Two small streams.
Second Mine Run.
Small stream.
Dreamy Brook.
Williams Branch.
Spring Branch.
Dead Run.
Bee Tree Run.
Herring Run.

Upper Gunpowder.
Mine Bank Run.
Dipping Pond.
Deep Run.
Beaver Dam.
Gwynn's Falls.
Black Branch.
Small stream.
Long Green Branch.
Chattolantee Spring.
Bacon Branch.
Lake Jorosa.
Shamut.
Owl's Branch.

CARROLL.

Owings Creek.
Polster Branch.
Upper Patapsco.
Small stream.
Indian Run.

Pond and Stream.
Big Spring.
Robert's Pool.
Big Pipe Creek.
Sabillasville Creek.

Beaver Run.
Adam's Lake.
Crowl's Run.
Piney Run.
Morgan's Run.

CECIL.

Shaw's Run.
Stone Run.

Upper Stone Run.
Herring Run.

Happy Valley.
Sharon Run.

FREDERICK.

Turkey Run.
Linganore.
Pond and Stream.

Forma's Branch.
Pond.

Cable's Lake.
Tuscarora.

GARRETT.

Fork of Youghiogheny.
Lake Anne Welsh.
White Oak Spring.
Red Run.
White Meadow Run.
Lost Land Run.
Mill Run.
Pond.
Herrington.
Merley.
Duncan's Lick.

Pond.
Deep Creek.
Muddy Creek.
Bradley's Run.
Meadow Mountain Run.
Springs and Streams
at Deer Park.
Crab Tree.
Castleman River.
White's Dam.
Skipnish.

Two Mile Run.
Laurel Run.
Bear Creek.
Shield's Run.
Hoffacker's Run.
Harbor Run.
Cove Run.
Little Laurel Run.
Altamot Springs.
Muddy Run.
Cherry Creek.

HARFORD.

Small pond and stream.	Overshot.	The Ha-Ha Branch.
Peddler's Run.	Harlan's Branch.	Deep Run.
Peach Orchard.	Rock Vale Creek.	Camp Meeting.
Green Coat.	Rock Spring.	Thomas Run.
Stout Bottom.	Hollow Rock.	Rock Vale.
Cabin's Run.	Meadow Run.	Silver's Branch.
Broad Run.	Winter's Run.	Quaker Bottom Run.
Small stream.	Whiteford's Branch.	Rutledge Branch
Bynum Run.	Small stream.	Maple Spring Run.
Syrup Run.		

HOWARD.

Oakdale Branch.	Lime Kiln Branch.	Middle Patuxent.
Miles' Branch.	Little Patuxent.	Wilson's Branch.
Small stream.	Spring Branch.	Tub Mill Branch.
Pond.	Pond.	

MONTGOMERY.

Linkin's Branch.	Chichester's Branch.	Gunner's Branch.
Watts' Branch.	Northwest Branch.	Bennett's Creek.
Big Branch.	Big Seneca.	Cabin John.
Spring Branch.	Little Seneca.	Goshen Branch.
Buck Lodge Run.	Patuxent.	Rocky Branch.
Watery Branch.	Paint Branch.	Wildcat.
Stony Brauch.		

PRINCE GEORGE'S.

Bear Braenh.

WASHINGTON.

Little Conococheague	Little Antietam.	Marsh Run.
Marsh Run.	Raven Rock Stream.	Sniveley's Run.
Warner's Gap Run.	Beaver Creek.	Wingert's Run.
Antietam.	Hutzel's Stream.	Gray's Run.
Lake Royer.	College Run.	Cascade's.
St. James.	Wallick's Run.	Grove's Run.
Rohrer's Creek.	Fall's Creek.	

Below is an account of the eggs collected, and the fish deposited in the waters of the Western Shore for the year 1906 :

White perch eggs.....	8,000,000	Fry deposited... ..	6,500,000
		(estimated)	
Shad eggs.....	56,000	"	33,600
		Rainbow trout fry.....	40,000

Received from the United States Fish Commission and deposited :

White perch fry, 1,200,000; Shad fry, 350,000; Sunfish fingerlings, 8,000

The following is an account of the eggs collected and the fish deposited in the waters of the Western Shore in 1907 :

Shad eggs.....	500,000	Fry deposited.....	300,000
		(estimated)	
Yellow perch eggs....	10,400,000	“	8,320,000
White perch eggs.....	7,500,000	“	4,500,000
Brook trout eggs.....	700,000	“	600,200
		Bass fry deposited.....	12,000

Received from the United States Fish Commission and deposited :

Shad fry.....	500,000	Yellow perch fry	10,000,000
White perch fry.....	10,000,000	Rainbow trout fingerling..	55,000

CHAS. F. BROOKE,
Commissioner Western Shore.

Report of the Commissioner for the Eastern Shore.

The work at the four hatcheries on the Eastern Shore during the seasons of 1906 and 1907 has been fairly successful; the supply of perch has been increasing through the efforts of the Fish Commissioner, until an abundance of perch has been the result. The shad supply has not been so plentiful in the rivers, thereby lessening the distribution of shad fry very much. The scarcity of shad in the rivers is owing to the fact heretofore stated, of so many pound nets cutting off their run into the rivers, as the number of pound nets have from year to year increased in the bays and sounds, and at the mouths of the rivers; so have the number of shad supply in the rivers become diminished until the supply in some of the rivers is almost exhausted, and unless the pound nets are taken up during the month of May each season the supply must continue to so diminish. The shad fishing has become a very profitable industry in Maryland waters, and should receive such regulation by the Legislature as to insure its continued improvement. We are glad to report an abundant supply of both white and yellow perch distributed by the Commission in the various streams on the Shore. As will be seen from the reports of each Deputy Commissioner millions of both white and yellow perch have been turned loose into the rivers and creeks of the Eastern Shore, and the reports of the fishermen evidence that the young fish live, thrive and grow to maturity, thus supplying fish in the rivers and creeks where there were no fish, making glad the fisherman's heart as well as increasing the supply of food for his table, with the unusual thing of shipping fish to market. Such in brief is the story gathered by us as we visited the different hatcheries and reviewed our work on the Shore for the seasons of 1906 and 1907.

JAMES D. ANDERSON,
Commissioner Eastern Shore.

DEATH OF THOMAS HUGHLETT,

DEPUTY FISH COMMISSIONER.

Col. Thomas Hughlett, as he was familiarly known, died on the morning of March 11, 1907, at his home in Cambridge, Md., surrounded by his friends; among them Robert H. Thawley, who had been associated with him at Tuckahoe Station, for many years. We arrived at Cambridge, on the morning of Col. Hughlett's death, visited his home, spoke words of consolation to his widow, whom we found confined to her bed with rheumatism.

Mr. Thawley informed us that Col. Hughlett kept his hands moving during the night as if stripping fish, the work he had for more than 30 years been engaged in, until he was undoubtedly the most experienced man in the culture of fish on the Eastern Shore; and his work at Tuckahoe station far exceeded any station on the shore. At the beginning of my term as Fish Commissioner, I employed Col. Hughlett and made him my chief deputy. Our work together was most pleasant. He was very kind toward all who associated with him. Peace, peace, to his ashes. We all miss him.

ANDERSON.

HATCHING OPERATIONS
OF THE
Commissioner of Fisheries
FOR THE
EASTERN SHORE
1906-1907

TUCKAHOE STATION—THOMAS HUGHLETT, *Deputy*.**SHAD.**

1906.	Number Stripped.	Number of Eggs
April 11.....	1	30,000
“ 12.....	1	30,000
“ 13.....	2	60,000
“ 16.....	10	300,000
“ 17.....	13	390,000
“ 18.....	9	270,000
“ 19.....	7	210,000
“ 20.....	5	150,000
“ 23.....	15	450,000
“ 24.....	17	510,000
“ 25.....	13	390,000
“ 26.....	12	360,000
	<hr/> 105	<hr/> 3,150,000

WHITE PERCH.

1906.	Number Stripped.	Number of Eggs.
March 26.....	10	400,000
“ 27.....	8	320,000
“ 28.....	7	280,000
“ 29.....	5	200,000
“ 30.....	12	480,000
April 2.....	75	3,000,000
“ 3.....	50	2,000,000
“ 4.....	40	1,600,000
“ 5.....	35	1,400,000
“ 6.....	27	1,080,000
“ 9.....	100	4,000,000
“ 10.....	85	3,400,000
	<hr/> 454	<hr/> 18,160,000

Distributed with Yellow Perch.

YELLOW PERCH.

1906.		Number Stripped.	Number of Eggs.
March	14.....	125	5,000,000
"	26.....	300	12,000,000
"	27.....	250	10,000,000
"	28.....	300	12,000,000
"	29.....	450	18,000,000
"	30.....	400	16,000,000
"	31.....	300	12,000,000
April	4.....	300	12,000,000
"	5.....	200	8,000,000
"	.....	150	6,000,000
		2,775	111,000,000

DISTRIBUTION OF PERCH FRY.

1906.	Place.	Number.
April 18—	Northeast river, near Northeast.....	2,000,000
" 18—	Elk river, at Red Mills.....	2,000,000
" 19—	Bohemia river, Murphy's Mills.....	2,000,000
" 19—	Sassafras river, Fox Hole.....	2,000,000
" 20—	Miles river, Eureka Mills.....	2,000,000
" 20—	Tred Avon, Tan Yard Bridge.....	2,000,000
" 21—	Choptank river, Horseshoe Bend.....	2,000,000
" 21—	Choptank river, Brick Mills.....	2,000,000
" 23—	Watt's creek, branch of Choptank river.....	2,000,000
" 23—	Little Black Water river, Maple Dam.....	2,000,000
" 23—	Big Black Water, Beaver Dam.....	2,000,000
" 24—	Lloyd's Branch.....	2,000,000
" 24—	Wye river, Wye Mills.....	2,000,000
" 24—	Corsica river, near Centreville.....	2,000,000
" 25—	Chester river, near Millington.....	2,000,000
" 26—	Carter's Branch, extreme head of Choptank.....	2,000,000
" 27—	Transquakin river, Nabb's Bridge.....	2,000,000
" 27—	Chicamacomico river, near Drawbridge.....	2,000,000
" 27—	Tuckahoe Hatching Station.....	39,210,000
		75,210,000

THOMAS HUGHLETT,
Deputy Fish Commissioner.

ST. MARTINS RIVER HATCHING STATION.

HENRY T. BELL, *Deputy*.—March, 1906.

YELLOW PERCH EGGS TAKEN.

March 27th took.....	5,000,000
“ 28th “	3,000,000
“ 29th “	2,000,000
April 2d took.....	5,000,000
“ 4th “	4,000,000
Total.....	19,000,000

YELLOW PERCH HATCHED.

April 9th.....	4,000,000 fish
“ 10th.....	2,500,000 “
“ 11th.....	1,750,000 “
“ 13th.....	4,000,000 “
“ 14th.....	3,500,000 “
Total.....	15,750,000 “

YELLOW PERCH DISTRIBUTED.

April 10th, in the St. Martins River.....	1,500,000
“ 11th, in Greys creek.....	500,000
“ 12th, in Perkins creek.....	1,500,000
“ 13th, in the Showell river.....	500,000
“ 16th, in White's creek... ..	2,500,000
“ 17th, in the St. Martins river.....	1,750,000
“ 18th, in Trapp creek	4,000,000
“ 19th, in Taylors creek.....	3,000,000
“ 23d, in the Wicomico river.....	500,000
Total.....	15,750,000

WHITE PERCH EGGS TAKEN. DATE AND NUMBER OF FISH EGGS.

	Number of Fish.	Number of Eggs.
April 2d.....	8	400,000
" 3d.....	10	500,000
" 4th.....	12	600,000
" 5th.....	20	1,000,000
" 6th.....	15	750,000
" 7th.....	2	100,000
" 9th.....	5	250,000
" 11th.....	3	150,000
" 12th.....	2	100,000
" 16th.....	15	750,000
" 18th.....	12	600,000
" 20th.....	10	500,000
Total.....		5,700,000

WHITE PERCH HATCHED AND TIME OF HATCHING.

	Number Fish Hatched.
April 6th.....	350,000
" 7th.....	450,000
" 8th.....	500,000
" 9th.....	900,000
" 10th.....	700,000
" 11th.....	75,000
" 13th.....	200,000
" 14th.....	100,000
" 15th.....	75,000
" 19th.....	700,000
" 21st.....	500,000
" 22d.....	450,000
Total.....	5,000,000

WHITE PERCH DISTRIBUTED AND WHERE.

April 6th, St. Martins river.....	350,000
“ 7th, Perkins creek.....	450,000
“ 8th, Greys creek.....	500,000
“ 9th, Showell river.....	900,000
“ 10th, Whites creek.....	700,000
“ 11th, St. Martins river.....	75,000
“ 13th, Asawaneau river.....	200,000
“ 14th, Taylors creek.....	100,000
“ 15th, Trapp creek.....	75,000
“ 19th, St. Martins river and tributaries.....	700,000
“ 21st, Ayers creek.....	500,000
“ 22d, Herring creek.....	450,000
Total	5,000,000

HERRING EGGS TAKEN.

April 10th, eggs taken.....	10,000
“ 12th, “ “.....	15,000
“ 13th, “ “.....	6,000
“ 14th, “ “.....	4,000
“ 16th, “ “.....	5,000
“ 18th, “ “.....	2,500
Total	42,500

HERRING HATCHED AND DISTRIBUTED AND WHERE.

	Hatched.	Distributed.
April 13th.....	9,000	St. Martins river
“ 15th.....	14,000	“ “ “
“ 16th.....	5,000	“ “ “
“ 17th.....	3,000	“ “ “
“ 19th.....	4,000	“ “ “
“ 21st.....	2,000	“ “ “
Total.....	37,000	

1907. ST. MARTINS. WHITE PERCH.

	Eggs Obtained.	Fry.
April 1st.....	500,000	450,000
“ 2d.....	400,000	375,000
“ 3d.....	450,000	400,000
“ 4th.....	250,000	200,000
“ 5th.....	525,000	475,000
“ 6th.....	200,000	150,000
“ 7th.....	400,000	300,000
“ 8th.....	50,000	25,000

FRY DISTRIBUTED.

April 6th, at St. Martins.....	1,000,000
“ 11th, at Showels	1,000,000
“ 14th, at St. Martins.....	400,000

1907. ST. MARTINS. YELLOW PERCH.

	Fry.
March 21st.....	7,000,000
“ 22d.....	3,500,000
“ 25th.....	2,250,000
“ 27th.....	5,500,000
Total	18,250,000

Distributed as Follows:

April 5th, Herring creek.....	1,000,000
“ 6th, Showel river.....	2,000,000
“ 8th, Trappe creek.....	1,000,000
“ 9th, St. Martins.....	2,000,000
“ 10th, Taylors creek	1,000,000
“ 11th, Whites creek	1,000,000
“ 12th, St. Martins river.....	1,000,000
“ 14th, Showel river.....	2,000,000
“ 17th, Taylors creek.....	500,000
“ 18th, Reits creek.....	500,000
“ 19th, Trappe creek.....	1,000,000
“ 20th, Long creek.....	1,000,000
“ 22d, St. Martins	2,000,000
“ 23d, St. Martins creek	2,250,000
Grand total.....	18,250,000

HENRY T. BELL,

*Deputy Fish Commissioner.*SPAWN HATCHED AT THE SHARPTOWN STATION, SPRING SEASON,
1906, AND LIBERATED IN THE NANTICOKE RIVER.

White Perch.....	5,650,000
Yellow Perch.....	5,000,000
Shad.....	550,000

WALTER C. MANN, *Deputy.*

SHARPTOWN, MD., *May 27, 1907.*

HON. JAMES D. ANDERSON,
Fish Commissioner,
Deals Island, Md.

Dear Sir :

Enclosed you will please find my report for this Spring's work which I trust you will find to be correct. All bills are included in the statement I enclose with the exception of one from Mr. J. H. Marvil, Laurel, Del., for batteries and an oil cup. This bill I have never received, though I have requested it several times.

Mr. J. W. Twiford worked attending the hatching at the Fish House until June 21st, and it has been customary to pay him for this additional time in the past, whenever it has been necessary to run the house longer than the boat.

I wish to call your attention to the report on perch. You will notice in the first week's report that on the 1st, 2d and 3d days I have reported 500 perch. These were ring perch and the fry was taken out of the water and it is simply estimated as we could procure any quantity of them from the bottom.

Trusting that this season's work will prove satisfactory to you, I beg to remain,

Yours very truly,

SAMUEL P. TWIFORD.

SHARPTOWN, MD., *May 27, 1907.*

HON. JAMES D. ANDERSON,
Fish Commissioner,
Deals Island, Md.

Dear Sir :

I herewith submit my report of the work done this Spring at the Fish Hatching Station located at Sharptown, Md.

PERCH.

	Stripped.	Fry Obtained.
Monday, April 1st	100	2,500,000
Tuesday, April 2d	200	5,000,000
Wednesday, April 3d	200	5,000,000
Thursday, April 4th	25	625,000
Friday, April 5th	50	1,250,000
Monday, April 8th	25	625,000
Tuesday, April 9th	20	500,000
Wednesday, April 10th	50	1,250,000
Thursday, April 11th	30	750,000
Friday, April 12th	15	375,000
Monday, April 15th	15	375,000
Tuesday, April 16th	10	250,000
Wednesday, April 17th	15	375,000
Thursday, April 18th	12	300,000
Friday, April 19th	10	250,000
Saturday, April 20th	14	350,000
Monday, April 22d	18	450,000
Tuesday, April 23d	15	375,000
Wednesday, April 24th	15	375,000
Thursday, April 25th	16	400,000
Friday, April 26th	15	375,000

All of the above were turned out in the Nanticoke river.

SHAD.

	Stripped.	Fry Obtained.
Monday, April 22d.....	2	50,000
Tuesday, April 23d.....	1	25,000
Wednesday, April 24th.....	4	100,000
Thursday, April 25th.....	10	250,000
Friday, April 26th.....	8	200,000
Monday, April 29th.....	16	400,000
Tuesday, April 30th.....	12	300,000
Wednesday, May 1st.....	..	.....
Thursday, May 2d.....	6	150,000
Friday, May 3d.....	6	150,000
Monday, May 6th.....	10	250,000
Tuesday, May 7th.....	10	250,000
Wednesday, May 8th...	16	400,000
Thursday, May 9th...	..	.....
Friday, May 10th...	12	300,000
Saturday, May 11th.....	12	300,000
Monday, May 13th.....	10	250,000
Tuesday, May 14th.....	10	250,000
Wednesday, May 15th.....	8	200,000

Turned Out.

April 30th, Plumb creek.....	75,000
May 3d, Knowles' wharf, Nanticoke river.....	750,000
May 6th, Laurel river.....	400,000
May 7th, Truitt's wharf.....	300,000
May 10th, Dickerson's wharf, Nanticoke river.....	300,000
May 13th, Conway's pier, N. W. Fork river.....	500,000
May 14th, Gales creek.....	400,000
May 16th, Conley's Point, Nanticoke river.....	600,000
May 20th, Cooper's wharf, Nanticoke river.....	500,000
May 21st, Knowles' wharf, Nanticoke river.....	200,000

Very respectfully, yours,

SAMUEL P. TWIFORD,
Deputy.

CAMBRIDGE, MD., *May 22d, 1907.*

TO JAMES D. ANDERSON, ESQ.,

Fish Commissioner,

Deal's Island, Md.

Dear Sir :

I respectfully submit the following report of the Fish Hatching operations at Tuckahoe Station for the year ending April 30th, 1907.

Having been appointed to the position of Deputy Fish Commissioner in April, 1907, my active work at the Station covers a period of only one month, but the operations there, despite the sickness and death of my late lamented predecessor, Col. Thos. Hughlett, were kept well up to the standard by the trusted and experienced employees, and I believe good results were obtained.

The following gives in detail the number of fish hatched and the places of distribution :

April 3d, 1907, Greensboro.....	1,000,000
“ 4th, “ Buck Mills, by R. B. George.....	500,000
“ 5th, “ Tanyard Branch, “ “	1,000,000
“ 6th, “ Eureka Mills, “ “	1,000,000
“ 3d, “ Wye Mills, by Wm. H. Thawley.....	1,000,000
“ 4th, “ Lloyd's Branch, “ “	500,000
“ 5th, “ Chester River, “ “	1,000,000
“ 6th, “ Corsica River, “ “	1,000,000
“ 8th, “ Wats Creek, “ “	500,000
“ 9th, “ Head Miles River, “ “	1,000,000
“ 15th, “ At Station.....	3,000,000
“ 16th, “ “	2,000,000
“ 17th, “ “	3,000,000
“ 18th, “ “	1,000,000
White perch in Black Water River.....	1,000,000
Shad at Station.....	2,000,000

At the close of the season the hatching apparatus was securely housed and stored, and the launch used at the station was taken to Cambridge for repairs.

Respectfully submitted,

CHARLES R. MILLS,

Deputy Fish Commissioner.

REPORT OF THE SALISBURY HATCHING STATION, 1906.

Date.	Shad.	Eggs.	Hatched Out.
April 15.....	..	.....	.....
" 16.....	4	120,000	108,000
" 17.....	2	60,000	54,000
" 18.....	9	270,000	253,000
" 20.....	5	150,000	135,000
" 21.....	3	90,000	81,000
" 22.....	10	300,000	270,000
" 23.....	7	210,000	189,000
" 24.....	7	210,000	189,000
" 25.....	6	180,000	162,000
" 27.....	1	30,000	27,000
" 28.....	10	300,000	270,000
" 29.....	5	150,000	135,000
" 30.....	4	120,000	108,000
May 1.....	..	.....	.....
" 2.....	7	210,000	189,000
" 4.....	..	.....	.....
" 5.....	2	60,000	54,000
" 6.....	2	60,000	54,000
" 7.....	5	150,000	135,000
" 8.....	3	90,000	81,000
" 10.....	10	300,000	210,000
" 11.....	3	90,000	81,000
" 12.....	2	60,000	54,000
" 13.....	..	.....	.....
" 14.....	..	.....	.....
" 15.....	5	150,000	135,000
	112	3,360,000	2,874,000

When Distributed.	Where Distributed.	Number.
April 25.....	Manokin river.....	359,250
" 27.....	Pocomoke river.....	359,250
May 7.....	" " at Snow Hill.....	359,250
" 7.....	St. Martins river.....	359,250
" 5.....	West Branch.....	239,500
" 9.....	Williams Point.....	239,500
" 12.....	Eastern Branch.....	239,500
" 16.....	Shad Point.....	239,500
" 20.....	Sharps Point.....	239,500
" 25.....	High Bank.....	239,500
		2,874,000

W. F. CALLAWAY,
Deputy Commissioner.

REPORT OF SALISBURY HATCHING STATION, 1907.

Date.	Shad.	Eggs.	Hatched Out.
April 15.....	..	.....	.....
" 16.....	..	.....	.....
" 17.....	2	60,000	54,000
" 18.....	1	30,000	27,000
" 19.....	..	.....	.....
" 20.....	1	30,000	27,000
" 21.....	..	.....	.....
" 22.....	2	60,000	54,000
" 23.....	2	60,000	54,000
" 24.....	..	.....	.....
" 25.....	6	180,000	162,000
" 26.....	2	60,000	54,000
" 27.....	..	.....	.....
" 28.....	..	.....	.....
" 29.....	2	60,000	54,000
" 30.....	2	60,000	54,000
May 1.....	4	120,000	108,000
" 2.....	4	120,000	108,000
" 3.....	6	180,000	162,000
" 4.....	4	120,000	108,000
" 5.....	..	.....	.....
" 6.....	2	60,000	54,000
" 7.....	..	.....	.....
" 8.....	7	210,000	189,000
" 9.....	10	300,000	270,000
" 10.....	4	120,000	108,000
" 11.....	4	120,000	108,000
" 12.....	7	210,000	189,000
" 13.....	3	90,000	81,000
" 14.....	2	60,000	54,000
" 15.....	2	60,000	54,000
	79	2,370,000	2,133,000

WHEN AND WHERE DISTRIBUTED.

When Distributed.	Where Distributed.	Number.
April 26.....	Snow Hill (Pocomoke river).....	500,000
" 30.....	Princess Anne (Manokin river).....	500,000
May 3.....	Sharp's Point (Wicomico river).....	250,000
" 8.....	Shad Point (Wicomico river).....	250,000
" 11.....	Eastern Branch (Wicomico river).....	200,000
" 14.....	High Banks (Wicomico river).....	225,000
" 18.....	Western Branch (Wicomico river).....	208,000
		<hr/> 2,133,000

W. F. CALLAWAY,
Deputy Fish Commissioner.

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